

MICROGRAVITY SCIENCES AND PROCESSES SYMPOSIUM (A2)
Microgravity Sciences onboard the International Space Station and Beyond (6)

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MXGS ON ASIM AT ISS. MECHANICAL AND THERMAL DESIGN

Abstract

By using techniques developed on High Energy Gamma rays detection from the LEGRI Instrument on board Spanish MINISAT satellite, and, the experience acquired with INTEGRAL payloads. The scientific and technical team GACE-INTA is involved in developing an instrument which will detect High Energy Events of very short time duration coming from upper layers of the Terrestrial high atmosphere. In this mission GACE-INTA team cooperates with Danish National Space Institute (NSI) and the University of Bergen (UB). Because this phenomenon is similar to space Gamma Ray Burst (GRBs), it has been named as Terrestrial Gamma Ray Burst events (TGFs) and being object of research recently. A space base instrument, to be located on International Space Station (COLUMBUS module), enjoys a superb location in order to monitor the earth atmosphere and therefore detect rare events. At same time new detectors and technical challenges will be foreseen by the team. This article demonstrates exposes the actual design and solutions. In this mission GACE-INTA team cooperates with Danish National Space Institute (NSI) and the University of Bergen (UB) under ESA Human Space Flight directorate umbrella.